



GREENBLUM & BERNSTEIN, P.L.C.
Intellectual Property Causes
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191

Mail Stop AF

IFC
AF

Response under 37 C.F.R. 1.116
Expedited Procedure Requested
Examining Group. 1723
Attorney Docket No. P21094

In re application of : Jörg ADLER et al.

Application No. : 09/856,495 (National Phase of PCT/EP99/09479) Group Art Unit: 1723

I.A. Filed : December 3, 1999 Examiner : Menon

For : CERAMIC MULTILAYER FILTERS AND METHOD FOR PRODUCING THE SAME

Mail Stop AF

U.S. Patent and Trademark Office
220 20th Street S.
Customer Window
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Corres. and Mail
BOX AF

Sir:
Transmitted herewith is a **Response to Interview Summary Mailed September 16, 2004** in the above-captioned application.

- ___ Small Entity Status of this application under 37 C.F.R. 1.9 and 1.27 has been established by a previously filed statement.
- ___ A verified statement to establish small entity status under 37 C.F.R. 1.9 and 1.27 is enclosed.
- ___ A Request for Extension of Time.
- X No additional fee is required.

The fee has been calculated as shown below:

Claims After Amendment	No. Claims Previously Paid For	Present Extra	Small Entity		Other Than A Small Entity	
			Rate	Fee	Rate	Fee
Total Claims: 27	*27	0	x 9=	\$	x 18=	\$0.00
Indep. Claims: 2	**3	0	x 43=	\$	x 86=	\$0.00
Multiple Dependent Claims Presented			+145=	\$	+290=	\$0.00
Extension Fees for ___ Month(s)				\$		\$0.00
Total:				\$	Total:	\$0.00

* If less than 20, write 20

** If less than 3, write 3

___ Please charge my Deposit Account No. 19-0089 in the amount of \$___.

N/A A check in the amount of \$___ to cover the filing/extension fee is included.

X The U.S. Patent and Trademark Office is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 19-0089.

X Any additional filing fees required under 37 C.F.R. 1.16.

X Any patent application processing fees under 37 C.F.R. 1.17, including any required extension of time fees in any concurrent or future reply requiring a petition for extension of time for its timely submission (37 C.F.R. 1.136(a)(3)).

Neil F. Greenblum
Reg. No. 28,394

Reg. 33,094



P21094.A11

Application No. 09/856,495

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Jörg ADLER et al.

Group Art Unit : 1723

Appl. No : 09/856,495
(National Stage of PCT/EP99/09479)

Examiner : Menon

I.A. Filed : December 3, 1999

For : **CERAMIC MULTILAYER FILTERS
AND METHOD FOR PRODUCING THE SAME**

RESPONSE TO INTERVIEW SUMMARY MAILED SEPTEMBER 16, 2004

Commissioner for Patents
U.S. Patent and Trademark Office
220 20th Street S.
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Sir:

This is in response to Interview Summary mailed September 16, 2004 which references the telephone interview conducted between the Examiner and Applicants' representative Arnold Turk on September 7, 2004.

In particular, during the interview, Applicants' representative stressed the arguments for patentability set forth in the Reply Under 37 C.F.R. 1.116, filed July 8, 2004. In particular, it was argued that according to the present invention the recited structure includes the feature that the particle size, particle morphology and particle composition/crystal structure of the ceramic particles is not altered or only slightly altered with about $\leq 1\%$ shrinkage of the ceramic multi-layer filter, and in which at least one of spot and surface connections are formed between the particles; and pore volume and pore size between the ceramic particles is reduced by the material only

slightly or only partially but not by more than 50%. It was once again pointed out that in the Ravaging documents a considerable change of the particle size and/or particle morphology and/or particle composition and/or crystal structure occurs, and that the amount of pores and the pore size of the shrinkage-matched component in the Ravagni documents are thus also changed considerably. This it was argued that change is expected in the Ravagni documents by one skilled in the art, because the particles change their form and size through the participation of the ceramic component in the sintering.

It was again pointed out that in contrast this does not occur in the present invention, because no sinter bridges are formed between the ceramic particles during sintering and so no change in the ceramic particles takes place. The bond between the ceramic particles substantially occurs through the bonds formed through the liquid phase of the wetting material.

Still further, it was noted that Applicant's claims include that the particle surfaces of all ceramic particles in each of said at least two layers, during formation of said at least two layers, are wet entirely or partially with at least one material which wets the surfaces of the ceramic particles and has the same or approximately the same thermal coefficient of expansion as the ceramic particles. Thus, it was pointed out that the at least one material wets the surface of the ceramic particles, and has the same or approximately the same thermal coefficient of expansion as the ceramic particles. Moreover, it was pointed out that the at least one material does not alter or only slightly alters the particle size, particle morphology and particle composition/crystal structure of the ceramic particles with about $\leq 1\%$ shrinkage of the ceramic multi-layer filter, and in which at least one of spot and surface connections are formed between the particles. The Ravagni

documents do not disclose such a material and do not teach or suggest a ceramic multi-layer filter having a structure as recited in Applicants' claims.

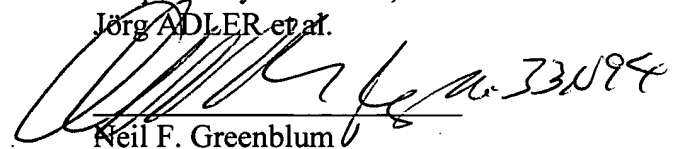
Regarding the assertion in the rejection that Ravagni discloses "particles wet by wetting material (glass, for example – see specification)", it was pointed out that the rejection does not point to any disclosure of Ravagni to support this assertion. It was again pointed out that while Ravagni discloses further components including glass, there apparently is no disclosure of glass as a wetting material. The specific characteristic of the powders i-iv in the first layer of the Ravagni documents is that they are made of ceramic and either differ in grain size or have a sinter-inhibiting effect. Because of this, particles are present in the sintered material either loosely or are fused together, but without being wetted by a second phase. This is unlike the present invention, and cannot yield structure as recited in Applicants' claims.

The Examiner indicated that no agreement was reached. Applicants' representative indicated that further arguments would be presented either in a further response or an Appeal Brief.

Should the Examiner have any questions regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,

Jörg ADLER et al.

A handwritten signature in black ink, appearing to read "Neil F. Greenblum", is written over the printed name. To the right of the signature, the number "33094" is handwritten.

Neil F. Greenblum

Reg. No. 28,394

September 24, 2004
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191